

## SYSTEM AND METHOD FOR TREATING OBSTRUCTIVE SLEEP APNEA

## ABSTRACT OF THE DISCLOSURE

There is disclosed a system and method for treating obstructive sleep apnea by terminating an obstructive sleep apnea event before the cessation of breathing occurs. The system comprises one or more microphones capable of detecting breathing sounds within an airway of a person. The microphones generate signals representative of the breathing sounds and send the signals to a controller. The controller uses digital signal processing to identify at least one signal pattern that is associated with a breathing pattern of the person that occurs at the onset of an obstructive sleep apnea event. When the controller detects a signal pattern that indicates the onset of an obstructive apnea event, the controller sends an alarm signal to a stimulus generator. The stimulus generator creates a stimulus (an electric current, a sound, a vibrator, a flashing light, etc.) to cause the sleeping person to move in a manner to terminate the obstructive sleep apnea event before cessation of breathing occurs. The obstructive sleep apnea event is terminated without waking the sleeping person and without causing the sleeping person physiological stress associated with cessation of breathing.